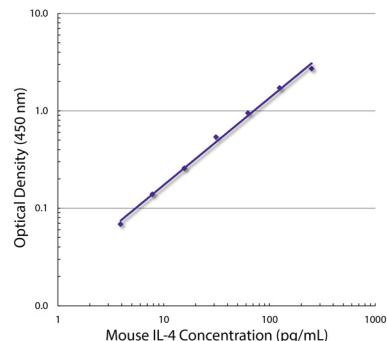




Rat Anti-Mouse IL-4

Cat. No.	Format	Size
10204-01	Purified (UNLB)	0.5 mg
10204-08	Biotin (BIOT)	0.5 mg



Standard curve generated with Rat Anti-Mouse IL-4-UNLB (SB Cat. No. 10203-01; Clone BVD4-1D11) and Rat Anti-Mouse IL-4-BIOT (SB Cat. No. 10204-08; Clone BVD6-24G2) followed by Mouse Anti-BIOT-HRP (SB Cat. No. 6404-05)

Overview

Clone	BVD6-24G2
Isotype	Rat IgG ₁ κ
Immunogen	<i>E. coli</i> -expressed mouse IL-4 (glutaraldehyde crosslinked)
Specificity	Mouse IL-4
Alternate Name(s)	Interleukin-4, B cell stimulating factor-1, BSF-1, macrophage fusion factor, MFF, Hodgkin's cell growth factor, HCGF, mast cell growth factor-2, MCGF-2, T cell growth factor-2, TCGF-2, Ia inducing factor, IaIF

Applications

ELISA-Detection – Quality tested ¹⁻⁷
 ELISPOT-Detection – Reported in literature ^{4,6,8-20}
 FC – Reported in literature ²¹⁻²⁴
 IHC-FS – Reported in literature ^{7,25-27}
 WB – Reported in literature ²⁸
 IP – Reported in literature ²⁸
 Multiplex-Detection – Reported in literature ³

Note – May be paired with the purified clone BVD4-1D11 (SB Cat. No. 10203-01) in a sandwich ELISA

Working Dilutions

ELISA	BIOT conjugate	1:5,000 – 1:10,000
Other Applications	Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.	

For Research Use Only. Not for Diagnostic or Therapeutic Use.

Handling and Storage

- The purified (UNLB) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/Na₃. Store at 2-8°C.
- Reagents are stable for the period shown on the label if stored as directed.

Warning

Some reagents contain sodium azide. Please refer to product specific SDS.

References

1. Sander B, Hödén I, Andersson U, Möller E, Abrams JS. Similar frequencies and kinetics of cytokine producing cells in murine peripheral blood and spleen. Cytokine detection by immunoassay and intracellular immunostaining. *J Immunol Methods.* 1993;166:201-14. (Immunoassay, ELISA-Detection)
2. Abrams JS, Roncarolo M, Yssel H, Andersson U, Gleich GJ, Silver JE. Strategies of anti-cytokine monoclonal antibody development: immunoassay of IL-10 and IL-5 in clinical samples. *Immunol Rev.* 1992;127:5-24. (ELISA-Detection)
3. Carson RT, Vignali DA. Simultaneous quantitation of 15 cytokines using a multiplexed flow cytometric assay. *J Immunol Methods.* 1999;227:41-52. (ELISA-Detection, Multiplex-Detection)
4. Pack CD, Cestra AE, Min B, Legge KL, Li L, Caprio-Young JC, et al. Neonatal exposure to antigen primes the immune system to develop responses in various lymphoid organs and promotes bystander regulation of diverse T cell specificities. *J Immunol.* 2001;167:4187-95. (ELISA-Detection, ELISPOT-Detection)
5. Abrams JS. Immunoenzymetric assay of mouse and human cytokines using NIP-labeled anti-cytokine antibodies. *Curr Protoc Immunol.* 2001;6.20:1-15. (ELISA-Detection)
6. Gessner A, Mohrs K, Mohrs M. Mast cells, basophils, and eosinophils acquire constitutive IL-4 and IL-13 transcripts during lineage differentiation that are sufficient for rapid cytokine production. *J Immunol.* 2005;174:1063-72. (ELISA-Detection, ELISPOT-Detection)
7. da Fonseca DM, Silva CL, Wowk PF, Paula MO, Ramos SG, Horn C, et al. Mycobacterium tuberculosis culture filtrate proteins plus CpG Oligodeoxynucleotides confer protection to Mycobacterium bovis BCG-primed mice by inhibiting interleukin-4 secretion. *Infect Immun.* 2009;77:5311-21. (ELISA-Detection, IHC-FS)
8. Lu P, Zhou X, Chen S, Moorman M, Morris SC, Finkelman FD, et al. CTLA-4 ligands are required to induce an in vivo interleukin 4 response to a gastrointestinal nematode parasite. *J Exp Med.* 1994;180:693-8. (ELISPOT-Detection)
9. Favre N, Bordmann G, Rudin W. Comparison of cytokine measurements using ELISA, ELISPOT and semi-quantitative RT-PCR. *J Immunol Methods.* 1997;204:57-66. (ELISPOT-Detection)
10. Bordmann G, Rudin W, Favre N. Immunization of mice with phosphatidylcholine drastically reduces the parasitaemia of subsequent Plasmodium chabaudi chabaudi blood-stage infections. *Immunology.* 1998;94:35-40. (ELISPOT-Detection)
11. Delogu G, Howard A, Collins FM, Morris SL. DNA vaccination against tuberculosis: expression of a ubiquitin-conjugated tuberculosis protein enhances antimycobacterial immunity. *Infect Immun.* 2000;68:3097-102. (ELISPOT-Detection)
12. Karulin AY, Hesse MD, Tary-Lehmann M, Lehmann PV. Single-cytokine-producing CD4 memory cells predominate in type 1 and type 2 immunity. *J Immunol.* 2000;164:1862-72. (ELISPOT-Detection)
13. Fedoseyeva EV, Kishimoto K, Rolls HK, Illigens BM, Dong VM, Valujskikh A, et al. Modulation of tissue-specific immune response to cardiac myosin can prolong survival of allogeneic heart transplants. *J Immunol.* 2002;169:1168-74. (ELISPOT-Detection)
14. Stern BV, Boehm BO, Tary-Lehmann M. Vaccination with tumor peptide in CpG adjuvant protects via IFN- γ -dependent CD4 cell immunity. *J Immunol.* 2002;168:6099-105. (ELISPOT-Detection)
15. Kreher CR, Dittrich MT, Guerkov R, Boehm BO, Tary-Lehmann M. CD4⁺ and CD8⁺ cells in cryopreserved human PBMC maintain full functionality in cytokine ELISPOT assays. *J Immunol Methods.* 2003;278:79-93. (ELISPOT-Detection)
16. Nekrasova T, Shive C, Gao Y, Kawamura K, Guardia R, Landreth G, et al. ERK1-deficient mice show normal T cell effector function and are highly susceptible to experimental autoimmune encephalomyelitis. *J Immunol.* 2005;175:2374-80. (ELISPOT-Detection)
17. Bower JF, Sanders KL, Ross TM. C3d enhances immune responses using low doses of DNA expressing the HIV-1 envelope from codon-optimized gene sequences. *Curr HIV Res.* 2005;3:191-8. (ELISPOT-Detection)
18. Hofstetter HH, Mössner R, Lesch KP, Linker RA, Toyka KV, Gold R. Absence of reuptake of serotonin influences susceptibility to clinical autoimmune disease and neuroantigen-specific interferon-gamma production in mouse EAE. *Clin Exp Immunol.* 2005;142:39-44. (ELISPOT-Detection)
19. Klinman D. ELISPOT assay to detect cytokine-secreting murine and human cells. *Curr Protoc Immunol.* 2008;6.19:1-9. (ELISPOT-Detection)
20. Faust SM, Lu G, Marini BL, Zou W, Gordon D, Iwakura Y, et al. Role of T cell TGF β signaling and IL-17 in allograft acceptance and fibrosis associated with chronic rejection. *J Immunol.* 2009;183:7297-306. (ELISPOT-Detection)
21. Campbell DJ, Butcher EC. Rapid acquisition of tissue-specific homing phenotypes by CD4⁺ T cells activated in cutaneous or mucosal lymphoid tissues. *J Exp Med.* 2002;195:135-41. (FC)
22. Machlenkin A, Goldberger O, Tirosh B, Paz A, Volovitz I, Bar-Haim E, et al. Combined dendritic cell cryotherapy of tumor induces systemic antimetastatic immunity. *Clin Cancer Res.* 2005;11:4955-61. (FC)
23. Zhao J, Lloyd CM, Noble A. Th17 responses in chronic allergic airway inflammation abrogate regulatory T-cell-mediated tolerance and contribute to airway remodeling. *Mucosal Immunol.* 2013;6:335-46. (FC)
24. Shindo Y, Yoshimura K, Kuramasu A, Watanabe Y, Ito H, Kondo T, et al. Combination immunotherapy with 4-1BB activation and PD-1 blockade enhances antitumor efficacy in a mouse model of subcutaneous tumor. *Anticancer Res.* 2015;35:129-36. (FC)
25. Hersmann GH, Kriegsmann J, Simon J, Hüttich C, Bräuer R. Expression of cell adhesion molecules and cytokines in murine antigen-induced arthritis. *Cell Adhes Commun.* 1998;6:69-82. (IHC-FS)
26. Cardona AE, Restrepo BI, Jaramillo JM, Teale JM. Development of an animal model for neurocysticercosis: immune response in the central nervous system is characterized by a predominance of $\gamma\delta$ T cells. *J Immunol.* 1999;162:995-1002. (IHC-FS)
27. Schön MP, Schön M, Warren HB, Donohue JP, Parker CM. Cutaneous inflammatory disorder in integrin α_E (CD103)-deficient mice. *J Immunol.* 2000;165:6583-9. (IHC-FS)
28. Wang L, Cole KD, Peterson A, He H, Gaigalas AK. Monoclonal antibody selection for interleukin-4 quantification using suspension arrays and forward-phase protein microarrays. *J Proteome Res.* 2007;6:4720-7. (WB, IP)